

Letter from the Editor

Welcome to the premier issue of the IDS Update Bulletin for CDC and other partners. This quarterly bulletin will provide information on IDS progress and plans for specific activities. As we collaborate with disease prevention and control programs at CDC, we think it is important to keep our collaborators and partners informed about IDS activities. We will list some of these activities in a calendar and describe others in a spotlight article. We would gladly include related activities from your program that would be of interest to us and our partners. Please contact our managing editor.

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IDS Regional Strategy Reaches Country Level

A Strategy to Control Priority Infectious Diseases

Integrated Disease Surveillance and Response (IDS) is a strategy of the African Regional Office of the World Health Organization (WHO/AFRO). IDS aims to improve the availability and use of surveillance and laboratory data for control of priority infectious diseases.

The specific goals of IDS are:

- To strengthen district-level surveillance and response for priority diseases
- To integrate surveillance with laboratory support, and
- To translate surveillance and

laboratory data into specific public health actions.

Thresholds—If They Work for Meningitis, Why Not for Other Diseases?

In the mid 1980s, CDC established surveillance thresholds as triggers for prompt response to meningitis (Figure 1). The linkage of laboratory-confirmed surveillance of *Neisseria meningitidis* meningitis and mass vaccination was later implemented in Africa. By 1996, WHO had begun to apply this approach to measles, cholera, and yellow fever. In 1998, WHO introduced the IDS strategy in

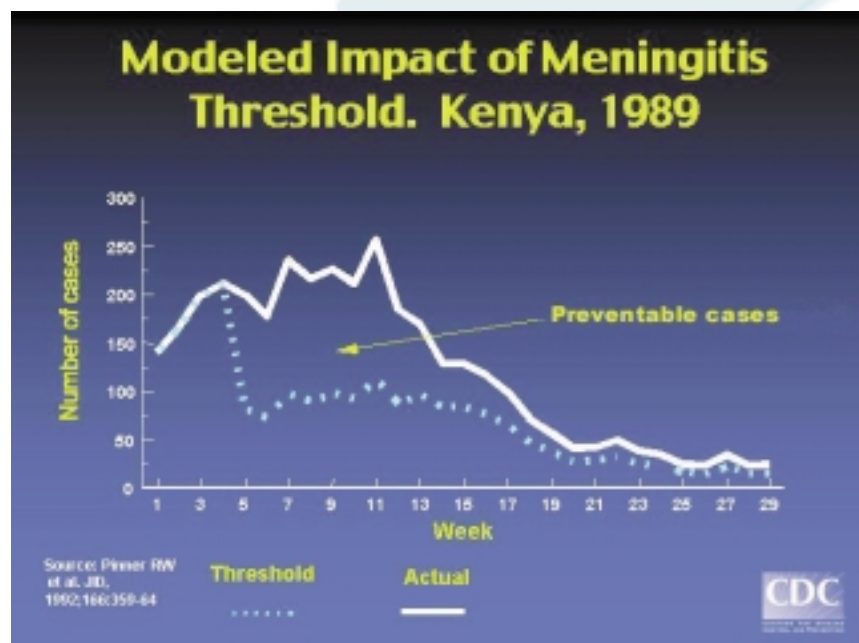


Figure 1. During an epidemic in Kenya in 1989, a total of 3800 meningitis cases was identified, indicated by the white line. A mass vaccination effort was started late in the epidemic. If the CDC threshold had been used to trigger immunization, the number of cases would have been substantially reduced

the African region, targeting 19 diseases that are important health problems in Africa (Table 1).

Table 1. IDS Targeted Diseases

EPIDEMIC PRONE DISEASES -Cholera -Diarrhoea with blood -Measles -Meningitis -Plague -Viral hemorrhagic fevers -Yellow fever
DISEASES TARGETED FOR ELIMINATION OR ERADICATION -Acute flaccid paralysis/poliomyelitis -Dracunculiasis -Leprosy -Neonatal tetanus
OTHER DISEASES OF MAJOR PUBLIC HEALTH IMPORTANCE -AIDS -Diarrhoea with dehydration in children less than 5 y old -Malaria -Pneumonia in children less than 5 y old -Onchocerciasis -Sexually transmitted infections -Trypanosomiasis -Tuberculosis

Countries Prepare for IDS: Assessing Surveillance and Laboratory Capacity

A country's first step towards IDS is to assess the national surveillance system and capacity for laboratory confirmation of priority diseases. The ministry of health uses a standard protocol and questionnaires developed by AFRO and CDC to look for:

- Strengths
- Weaknesses
- Available resources
- Gaps
- Opportunities for improvement.

As of May 2001, 23 of the 46 countries in the African region have completed assessments, several in collaboration with CDC.

Developing a Plan of Action

Using the assessment results, the ministry of health develops a Plan of Action for implementing IDS. The plan is funded by the ministry of health and outside donors. Sixteen countries have completed a Plan of Action which guides activities for improving:

- Early detection and registration
- Laboratory confirmation
- Reporting and feedback
- Data analysis and utilization
- Epidemic preparedness and response
- Training, supervision, and communication
- Monitoring and evaluation

Table 2. Accomplishments of Early Adopter Countries

Activities	Uganda	Tanzania	Ghana
SURVEILLANCE & LAB CAPACITY ASSESSED	Conducted Feb 2000	Conducted Nov 1998	Conducted Aug 2000
PLAN OF ACTION DEVELOPED	<ul style="list-style-type: none"> • 1 and 5 year Plans of Action, May 2000 • IDS work plans in all districts 	<ul style="list-style-type: none"> • 5 year Plan of Action, Feb 1999 	<ul style="list-style-type: none"> • 5 year Plan of Action, Nov 2000
TECHNICAL TOOLS FOR IDS DEVELOPED	<ul style="list-style-type: none"> • Action Threshold booklet • Guidelines for planning 	<ul style="list-style-type: none"> • National guidelines • Standard case definitions • Action thresholds 	<ul style="list-style-type: none"> • Case definitions of priority diseases • Surveillance log book format
OTHER ACHIEVEMENTS	<ul style="list-style-type: none"> • Identified 11 sentinel sites • Allocated MOH funds for surveillance 	<ul style="list-style-type: none"> • Educated MOH, regional and district officials on IDS • Participated in field testing generic technical guidelines for IDS • Formed IDS Task Force 	<ul style="list-style-type: none"> • Improved timeliness of reporting from 10 - 30% to 60% after assessment • Strengthened communication between national and regional levels

Implementing IDS: Three Countries are Early Adopters

Ghana, Uganda, and Tanzania have made great strides towards IDS implementation (Table 2). There is keen enthusiasm within the ministries of health for improving surveillance. Their efforts have already resulted in improvements in surveillance and in allocation of funds for IDS. Other countries in the region can benefit from these early adopters and lessons learned.



CDC Gives Technical Assistance

Describing a Model Surveillance System for the African Region

AFRO and CDC developed a model surveillance system based on the African situation. The complete system in which all the skills and activities are in place is shown in a matrix (Table 3). Each level supports activities at other levels and reinforces the opportunity for successful decision-making at corresponding levels and functions.

A "How To" Manual: Technical Guidelines for IDS

AFRO and CDC collaboratively developed Technical Guidelines for IDS in the African Region. This manual provides generic recommendations on how to carry



out the surveillance functions described in the matrix (Table 3) for each of the 19 priority diseases. District health staff in Tanzania and Burkina Faso field tested the English and French drafts. Each country will adapt the guidelines to accommodate for national variations.

Laboratory Strengthening

Laboratory confirmation, especially of epidemic-prone diseases is a key part of IDS. To strengthen the capacity of public health labs to confirm priority dis-

eases, Dr. Bradford A. Kay, a CDC microbiologist, is working in Harare as Regional Advisor for Bacteriology at AFRO on lab strengthening activities summarized in Table 4.

Table 4. Laboratory Strengthening Activities

• Developing communication network of directors of public health laboratories
• Providing reagents, media, and computers to national laboratories
• Exploring quality assurance and quality control resources
• Training for diagnosis of <i>N. meningitidis</i> , <i>S. dysenteriae</i> , <i>V. cholerae</i>
• Linking laboratory and surveillance in selected countries

Next Steps

AFRO and CDC will focus on country-level activities in Ghana, Uganda, Tanzania, and Burkina Faso, including:

- Adapting the technical guidelines at the country level
- Linking surveillance and laboratory systems
- Operational research
 - validating case definitions
 - evaluating disease response thresholds
 - evaluating impact of selected interventions
 - identifying process and outcome indicators to monitor and evaluate IDS
- Linking with other programs such as the Polio Eradication Program, Measles Elimination Program, Global AIDS Program (GAP), the Global Alliance for Vaccines and Immunization (GAVI), and Roll Back Malaria (RBM).

Table 3. Detect and Respond to Priority Diseases

	1.0 Identify	2.0 Report	3.0 Analyze and Interpret	4.0 Investigate	5.0 Respond	6.0 Provide Feedback	7.0 Evaluate and Improve the System
Community							
Health Facility							
District, State, Province							
National							
National WHO Representative, WHO Regional Office							

Each box is meant to contain activities that each level performs within the context of each surveillance function. The matrix can be used as a planning tool to identify areas for training and strengthening.



Publications

Assessment of Infectious Disease Surveillance — Uganda, 2000. CDC, MMWR, August 04, 2000 / 49(30);687-691.
<http://www.cdc.gov/mmwr/preview/mmwrhtml/mm4930a2.htm>.

Meet the IDS Teams

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2001 Calendar of Events

March 26 - 30 Eastern Epidemiologic Bloc Inter-country IDS meeting, Harare
April 4 - 7 Southern Epidemiologic Bloc Inter-country IDS meeting, Harare
May 28 - 30 2nd IDS Task Force meeting, Harare
May 31 - June 5 TEPHINET scientific meeting, Harare
June 4 - 8 Laboratory training on cholera, shigella, meningitis, Johannesburg

